Reed Sweetgrass Fact Sheet

CLASS A NOXIOUS WEED – WASHINGTON STATE

Glyceria maxima (C. Hartm.) Holmb.

Synonyms:
Glyceria spectabilis Mert. & Koch
Molinia maxima Hartman
Glyceria aquatica (L.) Wahlb., non J. & C.Presl
Poa aquatica L.

Common names:
reed sweetgrass, tall manna grass, reed grass

Native Range:
Glyceria maxima is native to temperate Europe and Asia

Introduced Range:
Glyceria maxima is sold as an ornamental plant, including a variegated variety with striped leaves. It has been introduced to several countries including Australia, New Zealand, and North America. In Canada it is most widely distributed in Ontario, but is also known from Alberta and Newfoundland. In the United States it is known from Wisconsin and Massachusetts. In Washington State, it is known only from one location at a private pond in Snohomish County.

Biology:
Glyceria maxima is a large perennial rhizomatous grass. It is classified as an obligate wetland plant (occurs almost always (estimated probability 99%) under natural conditions in wetlands), and will grow in water up to 2 m deep along the margins of rivers, streams and lakes. In deep water it can form large floating mats attached to the bank. The stem length can reach up to 2.5 meters. It produces a vast root system reaching to about 1 meter deep with rhizomes that form sprawling mats. The rhizomes can make up 40-55% of the plant's total biomass. *Glyceria maxima* goes dormant in winter, regrowing from buds along the rhizomes in spring. It prefers well aerated water, and growth slows as water goes anaerobic. The shoots of young plants can be either vegetative or flowering. On established plants with rhizome mats the majority of new shoots are just vegetative. This trait allows it to quickly colonize new areas by producing seed from young satellite plants while increasing the density of established plants to the exclusion of other species.

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Key identifying traits:

- *Glyceria maxima* is a large perennial grass, growing up to 2.5 m tall, often reddish on the lower part of the stems
- Extensive rhizomes produce a mat of stems
- Leaf sheaths have prominent midribs, visible transverse veins, feel slightly rough and are closed to near the top
- Ligules are membranous, smooth and rounded, 5-7 mm long.
- Leaf blades are flat, to 40 cm long and 0.7 to 2 cm wide. The leaf margins are rough to the touch when a finger is run from the tip to the base.
- Inflorescence (flower stem) is produced in the spring and summer, it is open and branched, up to 45 cm long. It is made of many yellow to green or purple tinged spikelets. Spikelets are narrow, 5 – 12 mm long

Threats and Rationale for Prohibiting:

Glyceria maxima is sold as an ornamental plant, and in some parts of the world it was also used as forage. However, it can contain dangerous levels of cyanide, and has caused cattle poisoning. It is considered a weed of significance in Tasmania, and also causes problems in other areas of temperate Australia. In Tasmania it has become capable of establishing and spreading on roadsides in the absence of permanent standing water. It is a weed of concern in New Zealand. In southern Ontario it is considered a Category 1 Invasive Exotic Species ("an aggressive invasive exotic species that can dominate a site to exclude all other species and remain dominant on the site indefinitely"). In Washington it is only known from one small private pond in Snohomish County. It is dominating this site, and shows great potential as an invasive species.

Glyceria maxima in Snohomish County pond – early spring growth

References:

http://plants.usda.gov/cgi_bin/topics.cgi?earl=plant_profile.cgi&symbol=GLMA3 (USDA-NRCS plant profile)
http://www.cfsan.fda.gov/~djw/pltx.cgi?QUERY=Glyceria+maxima (FDA poison plant database)
http://www.serontario.org/pdfs/exotics.pdf (Invasive Exotic Species Ranking for Southern Ontario)
http://tncweeds.ucdavis.edu/alert/alrtglyc.html (The Nature Conservancy weed alert)
http://www.dpiwe.tas.gov.au/inter.nsf/WebPages/RPIO-4ZV7D8?open (weed description from Tasmania)

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